

NOV - 3 2005

PATRICK E. DUFFY CLERK BY Deputy Clerk

# IN THE UNITED STATES DISTRICT COURT

# FOR THE DISTRICT OF MONTANA



# **BUTTE DIVISION**

UNITED STATES OF AMERICA,

Plaintiff,

v.

LONE MOOSE MEADOWS, LLC

Defendant.

Cause No. CV 05-76 Bu. SEH

CONSENT DECREE

WHEREAS, the Plaintiff, the United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), filed the Complaint herein against Defendant Lone Moose Meadows, LLC ("Defendant"), alleging that Defendant violated Section 301(a) of the Clean Water Act ("CWA"), 33 U.S.C. § 1311(a);

WHEREAS, the Complaint alleges that Defendant violated CWA Section 301(a) by discharging dredged or fill material and/or controlling and directing the discharge of dredged or fill material into waters of the United States at property known as Lone Moose Meadows in

Gallatin County, Montana (hereinafter referred to as "the Lone Moose Meadows Site") and more fully described in the Complaint, without authorization by the United States Department of the Army Corps of Engineers;

WHEREAS, the Complaint also alleges that the Defendant did not comply with the terms of the Findings of Violation and Order for Compliance issued by EPA on January 28, 2003;

WHEREAS, the Complaint seeks (1) to enjoin the discharge of pollutants into waters of the United States in violation of CWA Section 301(a), 33 U.S.C. § 1311(a); (2) to require Defendant, at its own expense and at the direction of EPA, to restore and/or mitigate the damages caused by its activities; and (3) to require Defendant to pay civil penalties as provided in 33 U.S.C. § 1319(d);

WHEREAS, Defendant denies the allegations of the Complaint and does not admit to any alleged violations of law;

WHEREAS, this Consent Decree is intended to constitute a complete and final settlement of the United States' claims under the CWA set forth in the Complaint regarding the Lone Moose Meadows Site;

WHEREAS, the United States and Defendant agree that settlement of this case is in the public interest and that entry of this Consent Decree is the most appropriate means of resolving the United States' claims under the CWA against Defendant in this case;

WHEREAS, it is the express purpose of the parties in entering this Consent Decree to further the objectives set forth in CWA Section 101, 33 U.S.C. § 1251. All plans, studies, construction, remedial maintenance, monitoring programs, and other obligations in this Consent Decree or resulting from the activities required by this Consent Decree shall have the objective of

causing Defendant to achieve and maintain full compliance with, and to further the purposes of, the CWA;

WHEREAS, the Court finds that this Consent Decree is a reasonable and fair settlement of the United States' claims against Defendant in this case, and that this Consent Decree adequately protects the public interest in accordance with the CWA and all other applicable federal law.

THEREFORE, before the taking of any testimony upon the pleadings, without further adjudication of any issue of fact or law, and upon consent of the parties hereto by their authorized representatives, it is hereby ORDERED, ADJUDGED and DECREED as follows:

# I. JURISDICTION AND VENUE

- 1. This Court has jurisdiction over the subject matter of these actions and over the parties pursuant to 28 U.S.C. §§ 1331, 1345, and 1355, and Section 309(b) of the CWA, 33 U.S.C. § 1319(b).
- 2. Venue is proper in the District of Montana pursuant to CWA Section 309(b), 33 U.S.C. § 1319(b), and 28 U.S.C. §§ 1391(b) and (c), because the Defendant conducts business in this District, the subject property is located in this District, and the causes of action alleged in the Complaint arose in this District.
- 3. The Complaint states claims upon which relief can be granted pursuant to Sections 301, 309 and 404 of the CWA, 33 U.S.C. §§ 1311, 1319 and 1344.

# II. APPLICABILITY

4. The obligations of this Consent Decree shall apply to and be binding upon Defendant, its officers, managers, directors, agents, employees and servants, and their successors and assigns and any person, firm, association or corporation who is, or will be, acting in concert

or participation with the Defendant whether or not such person has notice of this Consent Decree. Except as provided in Paragraphs 31-35, in any action to enforce this Consent Decree against Defendant, Defendant shall not raise as a defense the failure of any of its officers, managers, directors, agents, employees, successors or assigns or any person, firm or corporation acting in concert or participation with Defendant, to take any actions necessary to comply with the provisions hereof.

5. The transfer of ownership or other interest in the "Restoration Sites" or "Mitigation Sites" (as described in the "Revised Wetland Restoration and Mitigation Plan for Lone Moose Meadows" appended as Appendix A and incorporated herein by reference) shall not alter or relieve Defendant of its obligation to comply with all of the terms of this Consent Decree. At least fifteen (15) days prior to the transfer of ownership or other interest in the Restoration Sites or the Mitigation Sites, the party making such transfer shall provide written notice and a true copy of this Consent Decree to its successors in interest and shall simultaneously notify EPA and the United States Department of Justice at the addresses specified in Section IX below that such notice has been given. As a condition to any such transfer, Defendant shall reserve access rights to ensure compliance with the Consent Decree and assure that the transfer does not impede compliance with the terms of this Consent Decree.

# III. SCOPE OF CONSENT DECREE

6. This Consent Decree shall constitute a complete and final settlement of all claims against Defendant, its shareholders, officers, managers, directors, agents, employees, servants, successors or assigns, for injunctive relief and civil penalties alleged in the Complaint against the Defendant under CWA Sections 301 and 309 concerning the Lone Moose Meadows Site and arising prior to September 1, 2004.

- 7. Except as in accordance with this Consent Decree, Defendant and Defendant's agents, successors and assigns are enjoined from discharging any pollutant into waters of the United States, unless such discharge complies with the provisions of the CWA and its implementing regulations; provided, however, this paragraph shall not impose additional obligations upon persons who purchase real property from Defendant in the regular course of Defendant's business.
- 8. The parties acknowledge that, after the termination of this Consent Decree,
  Nationwide Permit 32, found at 67 Fed. Reg. 2020, 2084 (Jan. 15, 2002), authorizes any fill that
  was placed as of September 1, 2004 at the Lone Moose Meadows Site that is within the limits of
  the investigation area shown on Figure 2 of Appendix A and is not required to be restored or
  enhanced under this Consent Decree, subject to the conditions provided in the Nationwide Permit
  and this Consent Decree. The parties further acknowledge that Nationwide Permit 32 authorizes
  certain discharges of dredged or fill material insofar as such discharge is necessary to complete
  the work required to be performed pursuant to this Consent Decree. Any such discharge of
  dredged or fill material necessary for work required by this Consent Decree shall be subject to
  the conditions of the Nationwide Permit and this Consent Decree.
- 9. This Consent Decree is not and shall not be interpreted to be a permit or modification of any existing permit issued pursuant to Sections 402 or 404 of the CWA, 33 U.S.C. §§ 1342 or 1344, Title 75, Chapter 5, Mont. Code Ann. or any other law. With the exceptions of matters specifically addressed herein, nothing in this Consent Decree shall limit the ability of the United States Army Corps of Engineers to issue, modify, suspend, revoke or deny any individual permit or any nationwide or regional general permit, nor shall this Consent Decree

limit the EPA's ability to exercise its authority pursuant to Section 404(c) of the CWA, 33 U.S.C. § 1344(c).

- 10. With the exception of matters specifically addressed herein, this Consent Decree in no way affects or relieves Defendant of its responsibility to comply with any applicable federal, state, or local law, regulation or permit.
- 11. This Consent Decree in no way affects the rights of the United States as against any person not a party to this Consent Decree, except as provided in Paragraph 6 of this Consent Decree.
- 12. The United States reserves any and all legal and equitable remedies available to enforce the provisions of this Consent Decree and applicable law and Defendant reserves all defenses available to such enforcement.
- 13. Nothing in this Consent Decree shall constitute an admission of fact or law by any party.

# IV. SPECIFIC PROVISIONS

### A. CIVIL PENALTIES

- 14. Defendant shall pay a civil penalty to the United States in the amount of One Hundred Sixty-Five Thousand Dollars (\$165,000.00) within 30 days of entry of this Consent Decree.
- Transfer ("EFT" or wire transfer) to the U.S. Department of Justice account in accordance with current electronic funds transfer procedures, referencing U.S.A.O. file number 2003 v00209, EPA Region 8 and the DOJ case number (DJ # 90-5-1-1-17261). Payment shall be made in accordance with instructions provided to the Defendant by the Financial Litigation Unit of the

United States Attorney's Office for the District of Montana. Any payments received by the Department of Justice after 4:00 P.M. (Eastern Time) will be credited on the next business day.

- 16. Upon payment of the civil penalty required by this Consent Decree, Defendant shall provide written notice, at the addresses specified in Section IX of this Consent Decree, that such payment was made in accordance with Paragraph 15.
- 17. Civil penalty payments pursuant to this Consent Decree (including stipulated penalty payments under Section VIII) are penalties within the meaning of Section 162(f) of the Internal Revenue Code, 26 U.S.C. § 162(f), or of 26 C.F.R. § 1.162-21 and are not tax deductible expenditures for purposes of federal law.

# B. RESTORATION AND MITIGATION

- 18. Defendant shall perform restoration projects of approximately 0.75 acres and mitigation projects of approximately 0.87 acres of wetlands and channels under the terms and conditions stated in the "Revised Wetland Restoration and Mitigation Plan for Lone Moose Meadows" (Pioneer Environmental Services September 28, 2005), appended to this Consent Decree as Appendix A (the "Work Plan"). The Work Plan is incorporated herein by reference as an enforceable part of this Consent Decree. Defendant shall perform all grading and planting at all restoration and mitigation sites identified in the Work Plan except Site S-4 on or before October 15, 2005. Defendant shall perform all grading and planting at Site S-4 on or before October 15, 2006.
- 19. Until this Consent Decree is terminated in accordance with Paragraph 47,
  Defendant shall provide the United States with annual monitoring reports pursuant to the Work
  Plan on or before the later of entry of this Consent Decree or October 15 of each year. In
  addition, during 2006, Defendant shall provide the United States with monthly monitoring

reports, which will include the status of physical restoration and mitigation work, on or before the first day of June, July, August and September. If, at any time prior to the fifth anniversary of planting at a restoration or mitigation site, the restoration and mitigation projects identified in the Work Plan fail to achieve the success criteria specified therein, the Defendant shall propose corrective measures or alternative mitigation projects and a schedule for their implementation. Such corrective measures or alternative mitigation projects and a schedule for their implementation shall be submitted to the United States within 60 days of the earlier of (a) Defendant's discovery of the failure to meet success criteria or (b) Defendant's receipt of the United States' written position that success criteria were not met. Defendant shall implement the corrective measures or alternative mitigation projects upon approval by the United States and in accordance with a schedule for implementation approved by the United States. The parties expressly recognize that schedules for corrective measures and alternative mitigation projects must take into account the limited snow-free season at the Lone Moose Meadows Site. All disputes arising under this paragraph are subject to dispute resolution procedures in Section VI of this Consent Decree.

- 20. Defendant shall not mow, cut, clear, cultivate, dredge, excavate, farm, fill, dewater, drain or otherwise disturb in any manner whatsoever any restoration or mitigation site identified in the Work Plan except as approved by EPA. In the case of activities that are alleged to indirectly disturb any location where restoration or mitigation has occurred, the United States shall have the burden of proving the claimed indirect effect, notwithstanding any provision of Paragraphs 28-30.
- 21. To ensure that all restoration and mitigation sites identified in the Work Plan remain undisturbed, Defendant shall, within fifteen (15) days of entry of this Consent Decree,

record a certified copy of this Consent Decree with the Office of the Clerk and Recorder, in Gallatin County, Montana. Thereafter, each deed, title, or other instrument conveying an interest in any of the restoration or mitigation sites identified in the Work Plan shall contain a notice stating that the property is subject to this Consent Decree and shall reference the recorded location of the Consent Decree and any restrictions applicable to the property under this Consent Decree.

22. The Findings of Violation and Order for Compliance issued by EPA on January 28, 2003, and amended June 28, 2005, shall be superceded and terminated upon entry of this Consent Decree.

# V. NOTICES AND OTHER SUBMISSIONS

- 23. Within 30 days after the deadline for completing tasks set forth in this Consent Decree or the Work Plan, Defendant shall provide the United States with written notice, at the addresses specified in Section IX of this Consent Decree, of whether or not that task has been completed, identifying the date of completion and any other pertinent information including, if the task has not been completed, an explanation of why the task has not been completed.
- 24. In all notices, documents or reports submitted to the United States pursuant to this Consent Decree, the Defendant shall, by signature of a senior management official, certify such notices, documents and reports as follows:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information,

including the possibility of fine and imprisonment for knowing violations.

# VI. RETENTION OF RECORDS AND RIGHT OF ENTRY

- 25. Until ten years after entry of this Consent Decree, Defendant shall preserve and retain all final records and documents now in their possession or control or which come into their possession or control that provide information concerning performance of the tasks in the Work Plan, regardless of any corporate retention policy to the contrary. Until ten years after entry of this Consent Decree, Defendant shall also instruct their contractors and agents to preserve all final documents and records that provide information concerning performance of the tasks in the Work Plan.
- 26. At the conclusion of the document retention period, Defendant shall notify the United States at least 90 days prior to the destruction of any such records or documents, and, during the ten year period of record retention, upon request by the United States, Defendant shall deliver any such records or documents to EPA. The Defendant may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If the Defendant asserts such a privilege, it shall provide the United States with the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of the author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendant. However, no documents, reports or other information required to be submitted to EPA under the requirements of the Consent Decree shall be withheld on the

grounds that they are privileged. Any disputes concerning protection of privileged information will be subject to dispute resolution under this Consent Decree.

- 27. A. Until termination of this Consent Decree, the United States and its authorized representatives and contactors shall have the authority at all reasonable times to enter the Defendant's premises to:
  - 1) Monitor the activities required by this Consent Decree;
  - 2) Verify any data or information submitted to the United States;
  - 3) Obtain samples;
  - 4) Inspect and evaluate Defendant's restoration and/or mitigation activities; and
  - 5) Inspect and review any records required to be kept under the terms and conditions of this Consent Decree and the CWA.
- B. This provision of this Consent Decree is in addition to, and in no way limits or otherwise affects, the statutory authorities of the United States to conduct inspections, to require monitoring and to obtain information from the Defendants as authorized by law.

# VI. DISPUTE RESOLUTION

28. Any dispute that arises with respect to the meaning or requirements of any provision of this Consent Decree shall be, in the first instance, the subject of informal negotiations between the United States and Defendant affected by the dispute to attempt to resolve such dispute. The period for informal negotiations shall not extend beyond thirty (30) days beginning with written notice by one party to the other affected party or parties that a dispute exists, unless agreed to in writing by those parties. The decision at the informal negotiation stage will be made by the Assistant Regional Administrator, Office of Enforcement,

Compliance and Environmental Justice, EPA Region 8. If a dispute between the United States and Defendant cannot be resolved by informal negotiations, then the position advanced by the United States shall be considered binding unless, within fourteen (14) days after the end of the informal negotiations period, the Defendant files a motion with the Court seeking resolution of the dispute. The motion shall set forth the nature of the dispute and a proposal for its resolution. The United States shall have thirty (30) days to respond to the motion and propose an alternate resolution. In resolving any such dispute, the Defendant shall bear the burden of proving by a preponderance of the evidence that the United States' position is not in accordance with the objectives of this Consent Decree and the CWA and that the Defendant's position will achieve compliance with the terms and conditions of this Consent Decree and the CWA.

- 29. If the United States or Defendant believes that a dispute is not a good faith dispute, or that a delay would pose or increase a threat of harm to the public or the environment or affect construction during the construction season, it may move the Court for a resolution of the dispute prior to the expiration of the thirty (30) day period for informal negotiations. The responding party shall have fourteen (14) days to respond to the motion and propose an alternate resolution. In resolving any such dispute, the responding party shall have the burden of proving by a preponderance of the evidence that the moving party's position is not in accordance with the objectives of this Consent Decree and the CWA, and that the respondent's position will achieve compliance with the terms and conditions of this Consent Decree and the CWA.
- 30. Absent action by the Court, the filing of a motion asking the Court to resolve a dispute shall not extend or postpone any obligation of Defendant under this Consent Decree, except as provided in Paragraph 38 below regarding payment of stipulated penalties.

# VII. FORCE MAJEURE

- 31. Defendant shall perform the actions required under this Decree within the time limits set forth, agreed to in writing, or approved herein, unless the performance is prevented or delayed solely by events which constitute a Force Majeure event. A Force Majeure event is defined as any event arising from causes beyond the control of Defendant, including their employees, agents, consultants and contractors, which could not be overcome by due diligence and which delays or prevents the performance of an action required by this Consent Decree within the specified time period. A Force Majeure event does not include, inter alia, increased costs of performance, changed economic circumstances, changed labor relations, normal precipitation or climate events, changed circumstances arising out of the sale, lease or other transfer or conveyance of title or ownership or possession of a site, or failure to timely apply for federal, state or local permits.
- 32. If Defendant believes that a Force Majeure event has affected Defendant's ability to perform any action required under this Consent Decree, Defendant shall notify the United States in writing within seven (7) calendar days after the event at the addresses listed in Section IX. Such notice shall include a discussion of the following:
  - A. what action has been affected;
  - B. the specific cause(s) of the delay;
  - C. the length or estimated duration of the delay; and
  - D. any measures taken or planned by the Defendant to prevent or minimize the delay and a schedule for the implementation of such measures.

Defendant may also provide to the United States any additional information that it deems appropriate to support its conclusion that a Force Majeure event has affected its ability to

perform an action required under this Consent Decree. Failure to provide timely and complete notification to the United States shall constitute a waiver of any claim of Force Majeure as to the event in question.

- 33. If the United States determines that the conditions constitute a Force Majeure event, then the deadline for the affected action shall be extended by the amount of time of the delay caused by the Force Majeure event. Defendant shall coordinate with EPA to determine when to begin or resume the operations that had been affected by any Force Majeure event.
- 34. If the parties are unable to agree whether the conditions constitute a Force Majeure event, or whether the length of time for fulfilling the provision of the Consent Decree at issue should be extended, any party may seek a resolution of the dispute under the procedures in Section VI of this Consent Decree.
- 35. Defendant shall bear the burden of proving that the noncompliance at issue was caused by a Force Majeure event and the number of days of noncompliance that were caused by such circumstances.

# VIII. STIPULATED PENALTIES

36. After entry of this Consent Decree, if Defendant fails to or has failed to timely fulfill any requirement of the Consent Decree (including those identified in the Work Plan), the Defendant shall pay a stipulated penalty to the United States for each violation of each requirement of this Consent Decree as follows:

Α.	Day 30 of non-compliance	\$750.00 per day
B.	For Day 31 up to and including 60 of non-compliance	\$2,000.00 per day
C.	For Day 61 and beyond of non-compliance	\$4,000.00 per day

Such payments shall be made without demand by the United States on or before the last day of the month following the month in which the stipulated penalty accrued.

- 37. Any disputes concerning the amount of stipulated penalties, or the underlying violation that gives rise to the stipulated penalties, that cannot be resolved by the parties pursuant to the Dispute Resolution provisions in Section VI and/or the Force Majeure provisions in Section VII shall be resolved upon motion to this Court as provided in Paragraphs 28 and 29.
- Defendant's obligation to pay any stipulated penalties with respect to the disputed matter pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall continue to accrue from the first day of any failure or refusal to comply with any term or condition of this Consent Decree. In the event that Defendant does not prevail on the disputed issue, stipulated penalties shall be paid by Defendant as provided in this Section. The United States retains the authority, in its sole discretion, to reduce stipulated penalties as the facts or circumstances may allow.
- 39. To the extent Defendant demonstrates to the Court that a delay or other non-compliance was due to a Force Majeure event (as defined in Paragraph 31 above) or otherwise prevails on the disputed issue, the Court shall excuse the stipulated penalties for that delay or non-compliance.
- 40. In the event that a stipulated penalty payment is applicable and not made on time, interest will be charged in accordance with the statutory judgment interest rate provided for in 28 U.S.C. § 1961. The interest shall be computed daily from the time the payment is due until the date the payment is made. The interest shall also be compounded annually.

41. Defendant shall make any payment of a stipulated penalty by FedWire Electronic Funds Transfer ("EFT" or wire transfer) to the U.S. Department of Justice account in accordance with current electronic funds transfer procedures, referencing U.S.A.O. file number 2003 v00209, EPA Region 8 and the DOJ case number (DJ # 90-5-1-1-17261). Payment shall be made in accordance with instructions provided to the Defendant by the Financial Litigation Unit of the United States Attorney's Office for the District of Montana. Any payments received by the Department of Justice after 4:00 P.M. (Eastern Time) will be credited on the next business day. Further, upon payment of any stipulated penalties, Defendant shall provide written notice, at the addresses specified in Section IX of this Decree.

# IX. ADDRESSES

42. Except as noted below, all notices and communications required under this

Consent Decree shall be made to the parties through each of the following persons and addresses:

### A. TO EPA:

- (1) Elyana Sutin, Esq.
  Legal Enforcement Program (8ENF-L)
  United States Environmental Protection Agency
  999 18<sup>th</sup> Street
  Denver, Colorado 80202
- Director, Montana Field Office
   United States Environmental Protection Agency
   Region 8, Montana Office
   10 West 15<sup>th</sup> Street, Suite 3200
   Helena, Montana 59626-0096
- B. <u>TO THE UNITED STATES DEPARTMENT OF JUSTICE</u> (Only notices of property transfer and completion)
  - (1) Alan Greenberg, Esq.
    Environmental Defense Section
    U.S. Department of Justice
    999 18<sup>th</sup> Street, Suite 945
    Denver, CO 80202

(2) Leif M. Johnson, Esq.United States Attorney's OfficeP.O. Box 1478Billings, MT 59103

# C. TO DEFENDANTS:

- (1) Stephen R. Brown
  Garlington Lohn & Robinson PLLP
  P.O. Box 7909
  Missoula, Montana 59807-7909
- James J. DolanVoyager Lone Moose, LLC90 Beta DrivePittsburgh, PA 15238

# X. COSTS OF SUIT

43. Each party to this Consent Decree shall bear its own costs and attorneys' fees in this action. Should Defendant subsequently be determined by the Court to have violated the terms or conditions of this Consent Decree, Defendant shall be liable for any costs or attorneys' fees incurred by the United States in any action against Defendants for noncompliance with or enforcement of this Consent Decree.

# XI. PUBLIC COMMENT

44. A. The parties acknowledge that after the lodging and before the entry of this Consent Decree, final approval by the United States is subject to the requirements of 28 C.F.R. § 50.7, which provides for public notice and comment. The United States reserves the right to withhold or withdraw its consent to the entry of this Consent Decree if the comments received disclose facts or considerations which lead the United States to conclude that the proposed judgment is inappropriate, improper, or inadequate. The Defendant agrees not to withdraw from, oppose entry of, or to challenge any provision of this Consent Decree, unless the United States has notified the Defendant in writing that it no longer supports entry of the Consent Decree.

B. After the lodging and before the entry of this Consent Decree, Defendant will perform the work required under the Work Plan that is scheduled to occur prior to the date of entry of the Consent Decree. Defendant will continue to perform this work prior to entry of this Consent Decree unless the United States notifies Defendant in writing that it no longer supports entry of the Consent Decree.

# XII. CONTINUING JURISDICTION OF THE COURT

45. This Court shall retain jurisdiction over this action in order to enforce or modify the Consent Decree consistent with applicable law or to resolve all disputes arising hereunder as may be necessary or appropriate for construction or execution of this Consent Decree. During the pendency of the Consent Decree, any party may apply to the Court for any relief necessary to construe and effectuate the Consent Decree.

# XIII. MODIFICATION

46. Upon its entry by the Court, this Consent Decree shall have the force and effect of a final judgment. Any modification of this Consent Decree shall be in writing, and shall not take effect unless signed by both the United States and the Defendant and approved by the Court. Notwithstanding this provision, the following modifications will not require approval by the Court: (1) modifications of deadlines or other obligations or duties contained in the Work Plan that result from written agreements reached by the United States and Defendant that do not arise from invocation of informal dispute resolution and (2) modifications of deadlines or other obligations or duties that result from Force Majeure events under Paragraphs 31-35.

# XIV. TERMINATION

- 47. The Court shall terminate the terms of this Consent Decree, except for Paragraphs 20 and 25, upon joint motion of the parties, or upon motion filed with the Court by the United States or Defendant after the following have been completed:
  - A. Defendant has timely and satisfactorily completed all of the actions required by this Consent Decree;
  - B. Defendant has paid all monies and penalties due under this Consent Decree;
  - C. Defendant has submitted a certification to the United States that conditionsA. and B. above have been met; and
  - D. The United States has concurred in writing with Defendant's certified contention that conditions A. and B. have been met or has not objected within 90 days following receipt of Defendant's certified contention.

If the United States disputes Defendant's contention that it has complied with these conditions, the provision of Section VI (Dispute Resolution) shall be invoked. This Consent Decree shall remain in effect pending resolution of the dispute by the parties or the Court. Within 30 days of termination of this Consent Decree, Defendant will record a certified copy of the Order of Termination with the Office of the Clerk and Recorder, in Gallatin County, Montana.

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# IT IS SO ORDERED.

Dated and entered	this	day of	, 2005.	

# ON BEHALF OF THE UNITED STATES:

WILLIAM W. MERCER United States Attorney

District of Montana

Leif Johnson/

Assistant United States Attorney

P.O. Box 1478

Billings, MT 59103

KELLY A. JOHNSON

Acting Assistant Attorney General

JOHN C. CRUDEN

Deputy Assistant Attorney General

Environment and Natural Resources Division

Alan D. Greenberg, Attorney

Environmental Defense Section

Environment and Natural Resources Division

U.S. Department of Justice

999 18th Street, Suite 945

Denver, CO 80202

Dated: Nov 1, 2005

United States District Judge

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Walley mutt	Dated:
Walker B. Smith, Director	Dawa.
Office of Civil Enforcement	
Office of Enforcement and Compliance Assurance	
U.S. Environmental Protection Agency	
Ariel Rios Building South	
1200 Pennsylvania Ave. NW	
Washington DC 20460	
Thous J. Charles for	Dated: 10/20/05
Melissa K. Raack	· · · · · · · · · · · · · · · · · · ·
Attorney Advisor	
Office of Civil Enforcement	
U.S. Environmental Protection Agency	
Ariel Rios Building South	
1200 Pennsylvania Ave. NW	
Washington DC 20460	
C. P.O. P.IGITO	Dated:
CAROL RUSHIN	
Assistant Regional Administrator	
Office of Enforcement, Compliance and Environm	entai Justice
United States Environmental Protection Agency Region VIII	
999 18 <sup>th</sup> Street, Suite 500	
Denver, CO 80202-2466	
Denver, CO 80202-2400	
	Dated:
ELYANA SUTIN	
Enforcement Attorney	
United States Environmental Protection Agency	
Region VIII	
999 18 <sup>th</sup> Street, Suite 500	
Denver, CO 80202-2466	

	Dated:
Walker B. Smith, Director	
Office of Civil Enforcement	
Office of Enforcement and Compliance Assurance	
U.S. Environmental Protection Agency	
Ariel Rios Building South	
1200 Pennsylvania Ave. NW	
Washington DC 20460	
	Dated:
Melissa K. Raack	
Attorney Advisor	
Office of Civil Enforcement	
U.S. Environmental Protection Agency	
Ariel Rios Building South	
1200 Pennsylvania Ave. NW	
Washington DC 20460	
CAROL RUSHIN Assistant Regional Administrator Office of Enforcement, Compliance and Environm	Dated: 10/3/12005
United States Environmental Protection Agency	Silitar Subtree
Region VIII	
999 18 <sup>th</sup> Street, Suite 500	
Denver, CO 80202-2466	
ELYANA SUTIN	Dated: 11.1.05
Enforcement Attorney	
United States Environmental Protection Agency	
Region VIII	
999 18 <sup>th</sup> Street, Suite 500	
Denver, CO 80202-2466	

# FOR DEFENDANT:

LONE MOOSE MEADOWS, LLC

Ву

James J. Dolan, Manager

Dated: October 10, 2005



# Final Wetland Restoration and Mitigation Plan For Lone Moose Meadows

# Prepared for:

# Lone Moose Meadows Development Big Sky, MT 59716

Prepared by:



Pioneer Environmental Services, Inc.

PO Box 8849 Jackson, WY 83002 980 West 1800 South Logan, Utah 84321 (435) 753-0033

**September 28, 2005** 

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# 1.0 INTRODUCTION

# 1.1 PURPOSE

The purpose of this reclamation plan is to restore and/or mitigate impacts to locations identified by the U.S. Environmental Protection Agency (EPA) as jurisdictional wetlands and other "Waters of the US' resulting from initial development of a property known as Lone Moose Meadows. This plan was prepared after consultation with EPA, as described in a letter dated November 23, 2004 and a meeting with the property representatives on December 2, 2004. It was agreed at that meeting that a combination of restoration and mitigation could be proposed in a restoration/mitigation plan as an acceptable next step in the resolution of the Clean Water Act Section 404 enforcement action identified at Lone Moose Meadows. The submitted plan was revised following a technical review and review by EPA. The following revised plan is provided in response to this review, direction, and agreement.

# 1.2 BACKGROUND

Lone Moose Meadows is a private condominium development that was begun in the late 1990s. The Lone Moose Meadows property (Figure 1) is located in Big Sky, Montana to the east of the Big Sky Ski Resort. The property is a 360.53-acre parcel (LMM Parcel) owned by Lone Moose Meadows, LLC (LMM). There are also three condominium buildings within the property with individual units owned by private unrelated parties.

On July 9, 2002, EPA sent LMM a request for information pursuant to Section 308 of the Clean Water Act. LMM submitted its response on August 23, 2002. As part of its response, LMM provided an initial evaluation of impacts. Following the submission of several responses to requests for additional information, the EPA issued Findings of Violations and Order of Compliance (the Order) to LMM on January 23, 2003. The Order alleged that LMM was in violation of the Clean Water Act because of impacts to waters of the U.S. created by filling wetlands during initial construction of the development.

LMM had a wetland delineation completed for the LMM Parcel and submitted to the EPA in June 2004. The EPA and their representative reviewed the delineation and made a determination, following an August 31 - September 1, 2004 field review. The EPA concluded that there were seven sites on the LMM Parcel with impacts to jurisdictional waters of the U.S. and that the wetland delineation submitted was adequate for that determination. The EPA estimated the total area impacted is approximately 1.04 acres (Table 1). An EPA representative based this estimate on a combination of information submitted to the EPA by LMM in 2003 and a field review in 2004. Based on that determination, the EPA directed LMM to restore or mitigate the specifically identified impacts. A follow-up meeting between LMM and EPA on December 2, 2004 clarified the direction that the restoration/mitigation should take. A Proposed Wetlands Restoration/Mitigation Plan was submitted by LMM to the EPA in January 2005. The EPA gave the proposed plan a technical review and provided comments for revision of the plan. This wetland restoration and mitigation plan provides the detail necessary to demonstrate how that direction will be implemented.

# 2.0 RESTORATION/MITIGATION PLAN

The immediate goal of implementing the wetland restoration/mitigation plan is to restore, replace or otherwise compensate for the 1.04 acres of impacted wetlands (Table 1) within the LMM Parcel with wetlands of similar or larger size, as well as similar function and values. The long-term goal is to ensure that the replacement wetlands possess functions and values equivalent to, or better than, those that were impacted.

There are three categories of restoration/mitigation actions designed to be implemented on approximately 1.62 acres (Table 2). These include: 1) those measures designed to be implemented on approximately 0.47 to 0.75 acres (depending on the agreed to size of Site S-4) in order to restore functions and values at sites where restoration is feasible; 2) those measures designed to be implemented on mitigation sites within the project site totaling approximately 0.58 acres in order to compensate on a 2:1 ratio for the permanent impacts to approximately 0.29 acres of wetlands where restoration or mitigation is not feasible; and 3) those measures implemented on approximately 0.29 acres designed to compensate on a 1:1 ratio for the short term losses of functions and values at sites where restoration is not feasible. Overall, restoration for the 0.47 (or 0.75 acres depending on S-4) will be on a 1:1 ratio. Mitigation, both long term and short term, for the 0.29 acres of wetland impacts where restoration was not feasible will occur on 0.87 acres at a 3:1 ratio.

Wetland restoration is designed to rehabilitate degraded wetlands and re-establish wetlands impacted by past construction. Emphasis at restoration sites is focused on restoration of hydrology at these locations. It is assumed that once hydrology is restored, other wetland functions and values will generally come back quickly. Wetland mitigation will focus on creation of new wetlands at locations where hydrology can be captured to provide a self-maintaining wetland. Soils at these locations will be enhanced by addition of organic mulch followed by planting wetland vegetation.

As noted above, the restoration/mitigation plan for this project includes: 1) restoration of hydrology at several locations where the constructed feature can be removed; 2) mitigation of the remaining sites by creation of new wetlands; and 3) restoration of wetland hydrology at a number of locations where the constructed feature cannot be removed. No reclamation is planned for the vehicle bridge (S-10) since this facility was permitted under a Montana 310 Permit (GD-143-97) issued September 23, 1997. The bridge is deemed necessary for service access to the south side of the Middle Fork of the West Fork of the Gallatin River (Figure 2).

Table 1. Wetland Impact Development (Fi	s Identified by EPA for the existing Lone I gure 2).	Moose Meadows
Site Number / Map Symbol	Wetland Number (Impact Source)	Acres Assessed as Impacted by the EPA
S-1 & S-2	W-9-02 S (2 culverts/ski slope) <sup>1</sup>	0.09
S-3	W-2-03 N (Sewer line) <sup>1</sup>	0.24
S-4	W-2-02 S (Skiway Bridge) <sup>1</sup>	$0.42 (0.14)^3$
Su	btotal for Sites Proposed for Restoration	$0.75 (0.47)^3$
S-5 & S-6	W-4-02 N (2 culverts)	0.08
S-7 & S-8	W-37-03 N (2 culverts)	0.03
S-9	W-35-03 N (1 culvert) <sup>2</sup>	0.02
S-10	W-2-02 S (Vehicle Bridge)	0.16
Si	ubtotal for Sites Proposed for Mitigation	0.29
TOTA	L ACRES OF WETLAND IMPACTED	$1.04 (0.76)^3$

<sup>&</sup>lt;sup>1</sup> Impacts are scheduled for total restoration.

Complete restoration to near original conditions is proposed for four impact sites S-1, S-2, S-3, & S-4 (Figure 2) totaling 0.75 acres (Table 2). Mitigation for the remaining 0.29 acres of wetland impacts would occur "on-site" at four mitigation sites all within the LMM Parcel (Table 2 and Figure 2).

Table 2. Summary of Proposed Wetland Restoration.				
Restoration Site Number / Map Symbol	Square Feet	Acres	Wetland Type <sup>1</sup>	Plan View & X-Section
S-1 & S-2	3,920	0.09	PE	Figure 3
S-3	10,454	0.24	PE	Figure 4
S-4 (Skiway Bridge)	18,295	$0.42(0.14)^2$	PE/SS	Figure 5
Total	32,669	$0.75 \\ (0.47)^2$		

 $<sup>^{</sup>T}PE = Palustrine \ Emergent \ SS = Scrub/shrub;^{2} \ Site S-4 \ may be more likely to be 0.14 acres rather than 0.42 acres, however restoration will still occur for all of the site regardless of size$ 

# 2.1 PROPOSED RESTORATION

The proposed wetland restoration plan calls for complete restoration of four impacted sites (S-1, S-2, S-3, & S-4 (Figures 3, 4, and 5, respectively)) and the restoration of hydrology at site S-9 (Figure 6) where a culvert would be installed. The restoration sites are primarily served by groundwater hydrology, but construction has left the areas slightly elevated and thereby cut-off from the natural groundwater flows. The key to restoration at these sites will be to lower the surface grades in order to allow water to come to the surface and to increase the organic content of surface soils. Although wetland seed and/or plants will be added to the restorations, migration of native wetland plants from adjoining wetlands into the restorations will dominate the long term recovery of the sites. The organic content of the soil may need to be augmented with mulch

<sup>&</sup>lt;sup>2</sup> Existing culvert will be modified to restore hydrology above and below the identified roads

<sup>&</sup>lt;sup>3</sup> Site S-4 may be more likely to be 0.14 acres rather than 0.42 acres, however restoration will still occur for all of the site regardless of size.

(finely ground and decomposed bark or other organic material that does not have viable seeds). A soil surfactant such as Yucca schidigera may also be used as needed in order to facilitate plant and soil development.

# 2.1.1 Restoration Site Descriptions

### Restoration Sites S-1 & S-2

The impacts at Restoration Sites S-1 & S-2 (Figure 3) occur at two locations located in a narrow channel that obliquely traverses north and south on the ski slope. The impacts result from grading and culvert installation in the channel to provide safe ski access west to east on the ski slope. The sites remain highly saturated with ground water and the expectation is that natural hydrologic function within the impact sites can easily be restored. The culverts and fill will be removed and the channel and hydrology restored by returning the area to its original contours. However, there is concern that removal of the culverts will allow any flowing water in the stream channel to undermine the snow in winter, creating a safety hazard to skiers who could unexpectedly hit or fall into the void created by the flowing channel. If it is deemed necessary to provide a means to avoid this hazard then a crossing structure that will hold snow in place for safe skier access, will be installed on a temporary basis during the winter and removed prior to the growing season.

Following re-grading, these sites would be topped with a fine, high-organic-content mulch and then seeded with *Beaked sedge (Carex utriculata)*, tufted hairgrass (*Deschampsia cespitosa*), and bluejoint reedgrass (*Calamagrostis canadensis*). Because of the slope, all of the disturbed soil area will be covered with a biodegradable erosion control blanket following completion of grading, mulching, and seeding.

### **Restoration Site S-3**

The impacts at Restoration Site S-3 (Figure 4) resulted from installation of a sewer line that connected the condominium development to the sewage treatment facility called the Santec Plant. The impact (0.24 acres) resulted from failure to segregate the excavated materials and replace them in the reverse order of their removal. To compound the impact, the final grade is slightly elevated in areas above the original adjoining wetland elevation, which then directs water away from the wetland. Most of the soils on the surface are not hydric. They are coarse sub-soils that do not hold water well. Consequently, the adjoining wetlands have not been able to re-establish themselves for more than 50 percent of the area (0.12 acres) within the path of the excavation. Since the quality of the adjoining wetlands has remained constant, it is assumed that ground water hydrology has not been damaged or disrupted. About one-half of the impacted area has already restored itself following construction.

To ensure uniformity of wetland development, the portion of the impact site that has not self restored (0.12 acres) will be excavated to 12 inches below the adjoining wetlands and the excavation will be filled with 6 inches of good topsoil mixed with fine mulch that has high organic content in order to accelerate development of hydric soils and wetland vegetation. Any high quality topsoil or hydric soil that has been removed in the

excavation of the affected wetland will be used to resurface the excavated site. This will leave the finished excavation 6 inches below the adjoining wetland, allowing several inches of water to seasonally accumulate in the channel, encouraging wetland plant growth and the development of hydric soils.

Once the channel is thoroughly saturated with water, containerized Beaked sedge (Carex utriculata) will be planted at the rate of 4000 plants per acre and seeded with tufted hairgrass (Deschampsia cespitosa), poverty rush (Juncus tenuis), and Swordleaf rush (Juncus ensifolius) at a rate of 2 pounds (PLS) per acre. This mixture of wetland plants will encourage rapid vegetative development and diversity in habitat for the first five to ten years following restoration. After that time, it is likely that the dominant vegetation will be Beaked sedge which is characteristic of the adjoining native wetland.

### Restoration Site S-4

The impacts at Restoration Site S-4 (Figure 5) at the Skiway Bridge were originally estimated at 0.42 acres prior to completion of the wetland delineation for the project area. However, a careful review of the wetland delineation and impacting structure clearly demonstrates that this acreage of impact was overestimated. A more realistic estimate of impact was determined to be 0.14 acres. The total impact, however, would be restored to natural conditions regardless of its precise size. To complete the restoration, the entire Skiway Bridge would be removed and the channel and adjacent slopes would be restored to their original shape, grade, and vegetation. Areas around the footings would be excavated to an elevation equal to the elevation of the channel.

Once excavation is completed, 6 inches of high quality topsoil and fine mulch will be added to the surface. Beaked sedge (*Carex utriculata*) and small-winged sedge (*Carex microptera*) would be planted at the rate of 4000 containerized plants per acre, and willows would be re-established in clumps on each side of the Middle Fork of the Gallatin River using cuttings from on-site willows.

# 2.2 PROPOSED MITIGATION

Due to commitments to Gallatin County, 0.29 acres of the originally estimated 1.04 acres of impacts to wetlands identified at LMM (EPA-2004) are associated with a vehicle bridge (0.16 acres) that is necessary for access to the south side of the river (S-10, Figure 2) or culvert installations (0.13 acres) that could not be completely restored. It is proposed that these remaining impacts be mitigated by creation of 0.87 acres of new wetlands similar to those affected within onsite mitigation areas.

The wetland creation sites are adjacent to existing wetlands and the Middle Fork of the West Fork of the Gallatin River. More specifically, the creation sites are located within the S½ of Section 28 T.6S, R.3E. Figure 2 identifies the location of these "on-site" and "in-kind" mitigation areas. The total proposed constructed mitigation is 0.87 acres (Table 3) and the purpose is to mitigate wetland impacts and replicate or improve upon the wetland functions and values lost at the impact sites. The mitigation areas would provide floodwater retention,

sediment and nutrient retention, groundwater recharge, and wildlife habitat. Overall, created wetland values should be greater than those lost since the impacted wetlands are in small unit increments while the mitigation is concentrated in a larger wetland complex. The eastern most site (M-2) is actually a restoration of an impact that was created by logging activity estimated at over 50 years ago. The impact was created by construction of a road and bridge that crossed the river. The bridge was removed years ago but the approaches to the bridge remain. The main sewer line connection between LMM and the Big Sky sewer line is also buried through this location.

Table 3. Summary of Proposed Wetland Mitigation.					
Map Symbol	Square Feet	Acres	Wetland Type*	Plan View & X-Section	
M-1	4,551	0.12	PE/SS	Figure 7	
M-2	13,507	0.30	PE/SS	Figure 7	
M-3	14,700	0.34	PE/SS	Figure 8	
M-4	4,792	0.11		Figure 9	
Total	32,758	0.87			
*PE = Palustrine Em	ergent SS = Scrub/shr	иb			

# 2.2.1 Mitigation Site Descriptions

### Mitigation Site M-1

Mitigation Site M-1 (Figure 7) is located on the north side of the Middle Fork of the West Fork of the Gallatin River. The site is an upland bordered on three sides by existing wetlands adjacent to the river. Creation of the site would be accomplished by removal and stockpiling the topsoil followed by excavation of the site to one foot below the level of the adjoining wetlands. Following excavation, the stockpiled topsoil and high organic content mulch would be added to the surface to bring the finished elevation to 6 inches below the adjoining wetlands. It is anticipated that there is sufficient ground water at this site to flood and saturate the excavation Once saturated, the site would be planted with containerized with 3 to 4 inches of water. Beaked sedge at a rate of 4000 per acre. The outer 1/3<sup>rd</sup> of the site would also be seeded with swordleaf rush and bluejoint reedgrass at a mixed rate of 2 pounds (PLS) per acre. Shrubs and trees whould be a component of mitigation site M-1. One-gallon containerized willow (Salix sp.) and green alder (Alnus crispa) will be planted in wetland areas and Engelmann spruce (Picea engelmannii), subalpine fir (Abies lasiocarpa), and/or Douglas fir (Pseudotsuga menziesii) in wetland-upland transition areas. Willows could also be planted as cuttings. Willow cuttings will be collected locally before they break dormancy and soaked in a root stimulate prior to planting in the early spring. It is understood that the density of these plantings will be relatively low and will approximate densities found in wetlands in the vicinity. The total size of this mitigation site would be 0.12 acres.

# Mitigation Site M-2 - Old Bridge Crossing/Sewer Line Crossing

Mitigation Site M-2 (Figure 7) was a historic logging bridge crossing on the Middle Fork of the West Fork of the Gallatin River. The main sewer line connection between LMM and the Big Sky sewer system was also buried at this location, although the previous owners removed the bridge many years ago. The old road approaches from the north and the south have remained elevated above the adjoining wetlands. Construction of a wetland at this location will involve restoration of previously existing wetlands by restoring the grade to conform to adjoining wetlands. It is estimated that 0.30 acres of wetland can be restored at this location by removing the excess soil and reducing the elevation on both sides of the river to a finished target elevation of 6748 feet. This elevation should allow re-establishment of necessary ground water hydrology from seeps at the base of the adjoining wetlands and side slopes.

The surface of the excavation would be covered with 6 inches of good topsoil mixed with fine high organic content mulch. The finished elevation would allow wetland hydrology to re-establish and support desirable wetland plants. Once saturated, the site would be planted with containerized Beaked sedge at a rate of 4000 per acre. The outer  $1/3^{\rm rd}$  of the site would also be seeded with tufted hairgrass and bluejoint reedgrass at a rate of 2 pounds per acre.

Shrubs and trees would be a component of mitigation site M-2. One-gallon containerized willow (Salix sp.) and green alder (Alnus crispa) will be planted in wetland areas and Engelmann spruce (Picea engelmannii), subalpine fir (Abies lasiocarpa), and/or Douglas fir (Pseudotsuga menziesii) in wetland-upland transition areas. Willows could also be planted as cuttings. Willow cuttings will be collected locally before they break dormancy and soaked in a root stimulate prior to planting in the early spring. It is understood that the density of these plantings will be relatively low and will approximate densities found in wetlands in the vicinity.

# Mitigation Site M-3

Mitigation Site M-3 (Figure 8) is located on the north side of the Middle Fork of the West Fork of the Gallatin River, west of Mitigation Site 1. The site is an upland bordered on three sides by existing wetlands adjacent to the river. Creation of the site would be accomplished by removal and stockpiling the topsoil followed by excavation of the site to one foot below the level of the adjoining wetlands. Following excavation, the stockpiled topsoil and high organic content mulch would be added to the surface to bring the finished elevation to 6 inches below the adjoining wetlands. It is anticipated that there is sufficient ground water at this site to flood and saturate the excavation with 3 to 4 inches of water. Once saturated, the site would be planted with containerized Beaked sedge at a rate of 4000 per acre. The outer 1/3<sup>rd</sup> of the site would also be seeded with sword-leaf rush and bluejoint reedgrass at a mixed rate of 2 pounds (PLS) per acre. Shrubs and trees whould be a component of mitigation site M-3. One-gallon containerized willow (Salix sp.) and green alder (Alnus crispa) will be planted in wetland areas and Engelmann spruce (Picea engelmannii), subalpine fir (Abies lasiocarpa), and/or Douglas fir (Pseudotsuga menziesii) in wetland-upland transition areas. Willows could also be

planted as cuttings. Willow cuttings will be collected locally before they break dormancy and soaked in a root stimulate prior to planting in the early spring. It is understood that the density of these plantings will be relatively low and will approximate densities found in wetlands in the vicinity. The total size of this mitigation site would be 0.34 acres.

# Mitigation Site M-4

Mitigation Site M-4 (Figure 9) is located on the south side of the Middle Fork of the West Fork of the Gallatin River, west of Mitigation Site 2. The site is an upland bordered on three sides by existing wetlands. Creation of the site would be accomplished by removal and stockpiling the topsoil followed by excavation of the site to one foot below the level of the adjoining wetlands. Following excavation, the stockpiled topsoil and high organic content mulch would be added to the surface to bring the finished elevation to 6 inches below the adjoining wetlands. As with site M-2, it is anticipated that there is sufficient ground water at this site to flood and saturate the excavation with 3 to 4 inches of water. Once saturated, the site would be planted with containerized Beaked sedge at a rate of 4000 per acre. The outer 1/3<sup>rd</sup> of the site would also be seeded with swordleaf rush and bluejoint reedgrass at a mixed rate of 2 pounds (PLS) per acre. The total size of this mitigation site would be 0.11 acres.

The following guidelines will be followed in use of seed to reestablish wetland plants in the restoration and mitigation sites.

- 1. When seeding with two or more species in the same area, equal portions of each seed will be used based on the weight of each seed, i.e. a two-seed mix will be 50/50, a three-seed mix will be 33/33/33, etc. by weight in pounds of live seed (PLS) not volume.
- 2. All seed will be broadcast seeded with a handheld broadcast seeder because of the small areas involved and that bringing in even small equipment is neither practical nor without consequence (potential to cause more damage).
- 3. A seeding rate of seven pounds (PLS) of *carex utriculata* per acre amounts to approximately 70 seeds per square foot, and two pounds (PLS) of *calamagrostis canadensis* would result in approximately 100 seeds per square foot.
- 4. All seeding rates are in PLS. The PLS, as a percentage of the bulk rate, will vary by each batch of seed used. Needless to say, the bulk rates of seeding will almost always be far in excess of the live seed rates, barring a 100 percent live seed shipment.
- 5. All seeded sites will be raked following seeding to lightly cover the seed. In general, seed will be covered with a thin covering in order to mimic natural conditions and optimize germination.
- 6. Given the species that have been recommended, all seeding will take place in the fall prior to snowfall. Precipitation and ideal moisture conditions cannot be counted on at any other time. Planting in the spring will be limited by snow cover and access limitations.

# 2.3 OVERALL PLANTING DESIGN

Restoration/mitigation efforts will disturb soil in both wetlands and uplands. All created wetlands would be planted exclusively with species native to Gallatin County, Montana. The list

of specific wetland species proposed for use on the mitigation/restoration areas is based on the dominant species known to occur at these impact sites that may be available commercially in either seed or seedling form. Where practicable, soils from disturbed wetland sites would be used at some mitigation sites. Using these soils would also provide a seed bank for revegetation efforts of indigenous species at these sites. Commercially available seed and containerized plants of appropriate species would also be used to enhance the revegetation effort. Tables 4 and 5 list all species to be considered for specific revegetation efforts.

### 2.3.2 Wetland Plants

The planting mix for Palustrine Emergent wetland mitigation areas would consist of Beaked sedge in the wettest areas with bluejoint reedgrass, and Colorado rush (*Juncus confuses*) on the surrounding edges to assist in erosion control and provide for species diversity and aesthetics. Small-winged sedge, tufted hairgrass, and poverty rush would also be used for specific site needs and to create some initial habitat diversity. Over time, these plants will become well established in dense communities dominated by the species best suited to the location and adaphic microhabitat. Wetland habitats in the area are dominated by beaked sedge.

Table 4. Dominant Wetland Plant Species Known to Occur in the Project Area and Available for Revegetation/Replanting Efforts.					
Species	Common Name	Indicator	Habitat		
Calamagrostis canadensis	Bluejoint reedgrass	Facultative wetland	Most moist areas, moist meadow areas.		
Carex microptera	Small-winged sedge	Facultative	Wet meadows, saturated soils and stream banks.		
Carex utriculata	Beaked sedge	Obligate Wetland	Swamps, wet meadows, around lakes, ponds, and streams in up to 6 inches of standing water.		
Deschampsia cespitosa	Tufted hairgrass	Facultative wetland	Moist sites between 5,000 and 13,000 feet.		
Juncus tenuis	Poverty rush	Facultative	Moist habitats with disturbed or compacted soils.		
Juncus ensifolius	Swordleaf rush	Facultative wetland	Dryer edges around springs and swampy meadows.		
Juncus confuses	Colorado Rush	Facultative	Moist sites between 5,000 and 11,500 feet.		

# 2.3.2 Upland Revegetation

Disturbance to upland areas or the buffers around the newly restored/created wetlands would be reseeded with a mixture of native grasses (Table 5) and sterile triticale to rapidly stabilize soils and minimize opportunities for noxious weeds to become established. All disturbed soils would also be treated with *Yucca schidigera* to stimulate rapid root development following germination.

Table 5. Dominant Upland Species Known to Occur in the Project Area and Available for Revegetation/Replanting Efforts.		
Species	Common Name	Habitat
Agrostis alba	Redtop	Most moist areas, moist meadow areas.
Achnatherum lettermanii	Letterman needlegrass	Upper elevation upland sites.
Bromus inermis	Smooth brome	Cool season long-lived sod former.

Exposed slopes with grades in excess of 20 percent would also be covered with a biodegradable erosion control blanket to minimize seed and soil movement prior to establishment of a vegetated cover.

#### 2.3.2 Noxious Weed Control

The entire property will be surveyed in the spring of 2005 to identify the presence of noxious weeds, especially areas adjacent to the affected wetlands and the areas proposed for use as wetland mitigation. Any identified populations within 150 feet of the restoration/mitigation sites and along all access routes would be treated with the appropriate chemicals prior to seed development and prior to initiation of construction. Control of noxious weeds within the construction sites will emphasize the following:

- 1. Minimize the amount and duration of soil disturbance during construction.
- 2. Reseed disturbed sites quickly to encourage rapid revegetation with competitive native plants or sterile triticale to minimize opportunities for noxious weeds to become established.
- 3. Treat disturbed soils with *yucca schidigera* to stimulate root development and plant establishment.
- 4. Annually monitor all sites to identify any noxious weed establishment and treat the identified populations immediately. Treatment may include mechanical removal for small isolated populations or chemical treatment with a chemical like Rodeo, approved for use in wetlands.
- 5. All herbicide applications will be administered by a certified herbicide applicator.

#### 2.4 OVERALL PLAN TO ESTABLISH HYDRIC SOILS

There are no stockpiles of hydric soils available on-site for use in construction of the mitigation sites. Suitable topsoil from the areas excavated to create the mitigation sites, however, would be saved and used to plate (cover) the new wetland surfaces. Suitable topsoil is dominated by fine soil textures such as silty clay and silty clay loams that are similar to the soils that occur in existing wetlands. In order to accelerate soil development, fine-textured, high organic content mulch would be mixed with these topsoils before they are used to surface the excavated sites. *Yucca schidigera* would also be added to accelerate root development on these sites and to act as a soil surfactant.

## 2.5 FUNCTIONS AND VALUES OF HABITATS TO BE CREATED

Creation of wetlands associated with LMM would increase the area, density, and structure of wetland vegetation within the overall site. Having a greater amount of wetland within the area would provide an increase in the functional values of wetlands for groundwater recharge and long-term discharge potential, sediment trapping, nutrient retention and removal, wildlife habitat, and natural heritage value. Wildlife benefits would be maximized by concentration of mitigation sites into an existing wetland complex along the river. The total size of wetlands within this complex would increase by at total of 1.5 acres. Larger wetland areas generally have greater function and value than small, dispersed wetland areas.

#### **2.6 TIMING**

All restoration and mitigation activities would be conducted concurrently. To ensure that all of the engineering aspects of the wetland Restoration/Mitigation Plan are implemented according to design, a professional wetlands specialist would oversee construction during all phases of the project. All construction of the physical restoration and mitigation work would be completed during 2005 and 2006.

#### 2.7 MONITORING PLAN

All wetland restoration and mitigation activities must contain some quantifiable characteristics by which the success of wetland mitigation efforts and commitments can be evaluated by the EPA and the applicant, once the restoration/mitigation plan is fully implemented. A qualified wetlands specialist will annually monitor restoration and mitigation sites to ensure that the restoration/mitigation efforts progress toward the defined targets. A monitoring report would then be submitted to the EPA by October 15 annually until restoration/mitigation can be classified as successful. Monitoring will evaluate three key criteria: the presence and successful establishment of hydric vegetation, the trend towards creating or maintaining hydric soils, and the presence of appropriate hydrology during the growing season. To meet the jurisdictional wetland criteria, an area must have hydrophytic vegetation, hydric soils, and wetland hydrology (Environmental Laboratory 1987). Demonstration of any two criteria is considered sufficient to determine success. Typically, the two criteria required to determine success are the presence of wetland hydrology and hydrophytic vegetation, since it takes much more time for a hydric soil to develop. Monitoring will take place in late spring to determine level of soil development and adequacy of hydrology and by late August to determine vegetative cover and composition. An annual survey for noxious weeds within 150 feet of restoration/mitigation sites would also be conducted during wetland monitoring activities and reported in the annual monitoring report. Permanent photo points would be installed at each restoration/mitigation site for use in tracking the visual development of each site during the monitoring period.

#### 2.7.1 Vegetation

Throughout the project area, two parameters would be used to determine revegetation success: total cover and percent hydrophytic vegetation. Native species would comprise at least 90% of the total vegetation cover at any restoration/mitigation site. Wetland restoration/mitigation sites

must meet the hydrophytic vegetation criteria. According to the 1987 Wetland Delineation Manual (Environmental Laboratory 1987) specifications, an area has hydrophytic vegetation when more than 50% of the dominant species composition from all strata is obligate wetland (OBL), facultative wetland (FACW), and/or facultative (FAC) species. The species list for revegetating restoration/mitigation sites emphasizes these categories (Table 4). Vegetation monitoring will be conducted using the line intercept sampling method to determine percent bare ground and species density and composition. Permanent transects will be established in each site with point samples taken at 5 foot intervals. Transects would be spaced in parallel lines at 20 foot intervals. Given the sizes of the sites, the minimums suggested will certainly be achieved.

#### **2.7.2 Soils**

All wetland restoration/mitigation sites would be sampled to determine whether sites are developing indicators that hydric soils are forming. Indicators for soil success criteria shall conform to the 1987 Wetland Delineation Manual (Environmental Laboratory 1987) and the list of Hydric Soils of the United States as well as subsequent amendments. During the monitoring period, low chroma may not have time to develop. However, iron staining (indication of oxidation-reduction reactions within an anaerobic environment) and mottles may develop and provide indicators of hydric soil development.

## 2.7.3 Hydrologic Regime

Hydrologic criteria described in the Wetland Delineation Manual (Environmental Laboratory 1987) would be applied to the wetland restoration/mitigation sites. The criteria would be evaluated by installing groundwater monitoring wells within the restoration/mitigation sites to determine if the locations have been saturated to within 12 inches of the surface during 12.5 percent of the biological growing season on consecutive days. Monitoring wells locations would be noted on maps, and the data displayed in both tabular and graphical formats in the annual monitoring reports. Monitoring wells will be installed in each mitigation site, evenly spaced, at a rate of 5 per acre with locations and numbers to be identified in the field. Wells will consist of 3 inch perforated PVC pipe 3 feet long and buried at least 30 inches in the ground. Wells will not be capped at either end. Wells will be monitored for 15 consecutive days in the spring or early summer once the soil temperature at 20 inches below the surface reaches 42°F, the official beginning of the biological growing season and once in July and once in August during the latter part of the growing season.

# 2.8 EROSION AND SEDIMENTATION CONTROL GUIDELINES

Erosion control measures would be designed according to guidelines set out in Montana's stormwater program to ensure that all sources of soil erosion and sediment from any of the restoration or mitigation construction activities are adequately controlled. This may be accomplished using the five basic erosion control strategies outlined below:

#### 2.8.1 Minimize the area of disturbance

Reduce areas of disturbed soil to a minimum by limiting the extent of disturbed soil exposure to where it is absolutely necessary. Stabilize soils with seed, mulch, or mats as soon as possible after construction in order to retain soils and limit the deleterious effect of storm water and heavy rainfall.

## 2.8.2 Control water at upslope site perimeters

Prevent storm water from entering areas of disturbed soil from outside and within the site. Diversion dikes and buffer strips of vegetation or soil mats are measures that can be used to reduce the amount of unwanted surface water entering individual construction sites during construction. Use of this measure will be dictated by site-specific circumstances and the pattern or likelihood of continued storm events.

#### 2.8.3 Control of water on-site

On all disturbance sites, water must be controlled and kept to low velocities so that erosion is minimal. Immediate seeding and mulching, or the application of sod, are the most effective means of controlling water on site. Useful structural control measures include interceptors, slope drains, surface roughening, hay bale dikes, silt fences, sediment logs, absorption mats, and check dams.

#### 2.8.4 Control of sediment on-site

Reduce the amount of sediment produced from areas of disturbed soils and control the sediment that is unavoidably produced on site. Immediate seeding and mulching are the most effective means of controlling sediment on site. Structural control measures include sediment traps and basins, surface roughening, hay bale dikes, check dams, sediment logs, and silt fences. Under some circumstances the use of sterile seed may be needed to serve as a "place holder" or nurse crop in order to effectively establish the appropriate permanent species intended for the site. Use of sterile seed will be evaluated on a site-specific basis.

#### 2.8.5 Control of sediment on down slope site perimeters

Prevent the off-site transport of all sediment produced on the construction sites. Effective control measures include buffer strips of vegetation, perimeter dikes and swales, sediment traps and basins, stabilized construction entrances, and silt fences. To avoid indirect filling of wetlands, all bare soil slopes must be revegetated quickly. Only species native to the area or sterile triticale should be used to revegetate disturbed sites. Steep bare soil slopes would be stabilized with biodegradable erosion control blankets until the revegetation is successful.

## 2.9 IMPLEMENTATION SCHEDULE

Implementation of this Plan will commence by June 15, 2005 and be completed by the fall of 2006. The first item to be accomplished will be a noxious weed survey within 150 feet of all restoration/mitigation sites. Once the survey is completed, a control plan will be implemented prior to initiating construction activity. Restoration at sites S-1, S-2, and S-3 would likely be started first in June, while construction of Mitigation Sites M-1, M-2, M-3, and M-4 will likely start in late July once stream flows have dropped to levels that are compatible with the adjacent construction activity. Revegetation of these sites will take place in late summer or early fall prior to snowfall.

Work on Restoration site S-4, the Ski Bridge, will take place in the summer of 2006. The additional time is necessary to properly design and construct the replacement bridge that will not impact any wetlands when installed. All construction on the Restoration and Mitigation sites will be completed before the first snowfall in the fall of 2006. Monitoring of the work completed in 2005 will begin in 2006. Monitoring of the entire restoration and mitigation effort will begin in 2007.

#### 3.0 REFERENCES

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Wetlands Research Program Technical Report. Y-87-1. Department of the Army, Waterways Experiment Station. Vicksburg, MS.

Environmental Protection Agency (EPA). 2004. Correspondence dated November 23, 2004, REF: 8ENF-L.

# **APPENDIX 1: FIGURES**

- Figure 1. Lone Moose Meadows general project vicinity and property boundary.
- Figure 2. Lone Moose Meadows wetland restoration and mitigation sites.
- Figure 3. Lone Moose Meadows impact and restoration sites S-1 & S-2.
- Figure 4. Lone Moose Meadows impact and restoration sites S-3.
- Figure 5. Lone Moose Meadows impact and restoration sites S-4.
- Figure 6. Lone Moose Meadows impact and restoration sites S-9.
- Figure 7. Lone Moose Meadows mitigation sites M-1 & M-2.
- Figure 8. Lone Moose Meadows mitigation sites M-3.
- Figure 9. Lone Moose Meadows mitigation sites M-4.

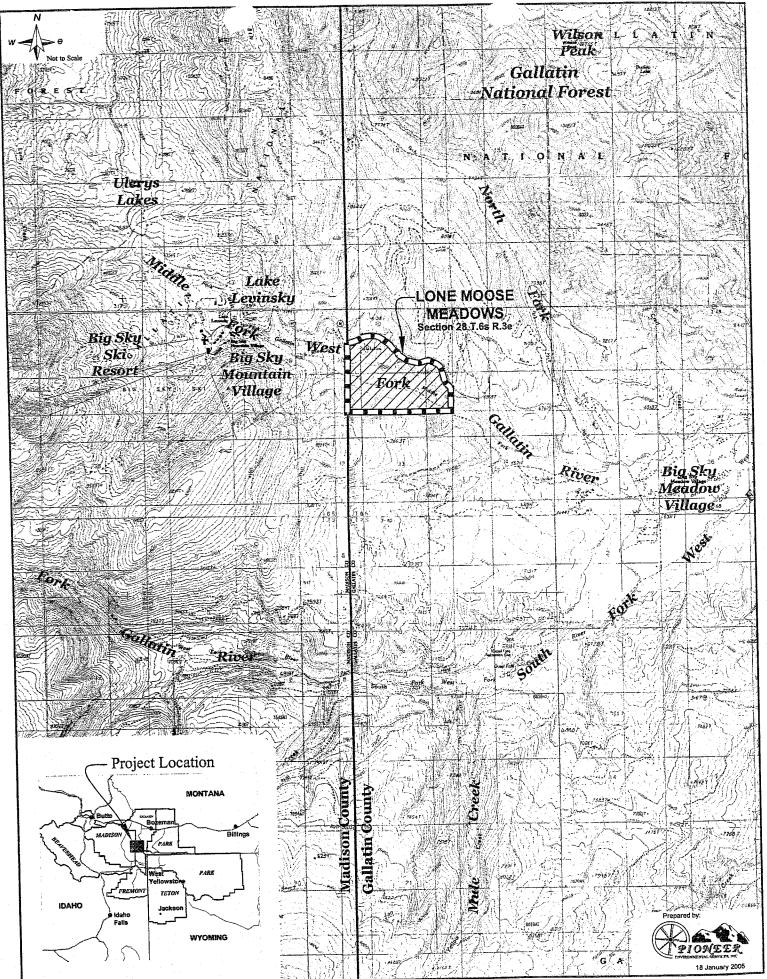


Figure 1. Lone Moose Meadows general project vicinity and property boundary.

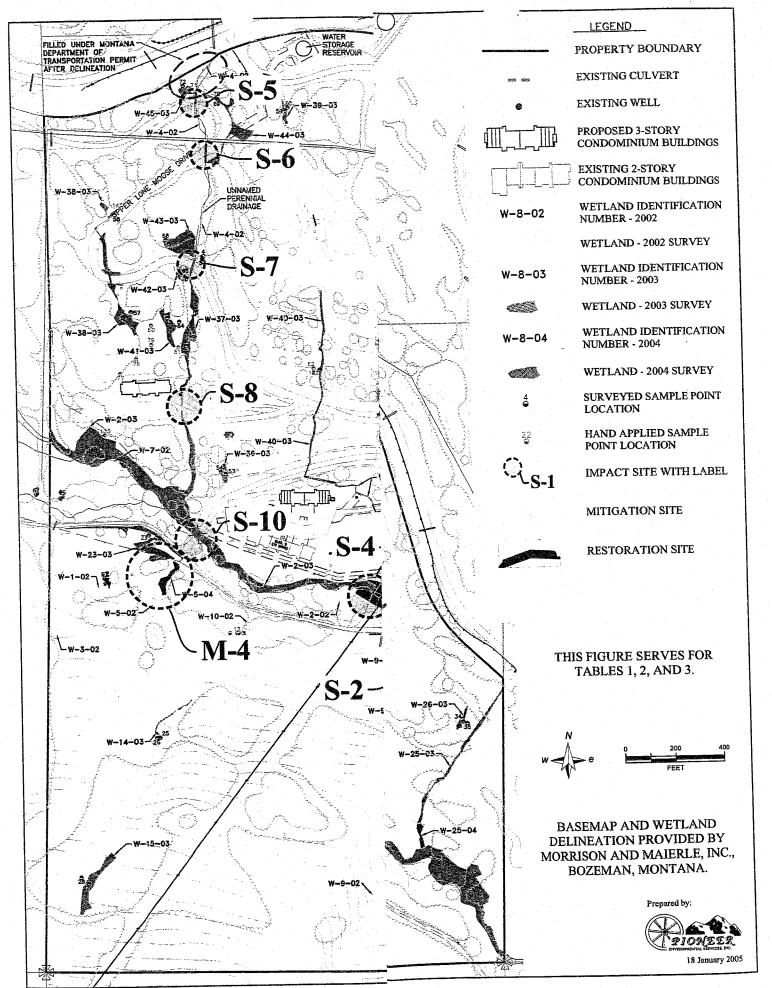


Figure 2. Lone Moose Meadows wetland restoration and

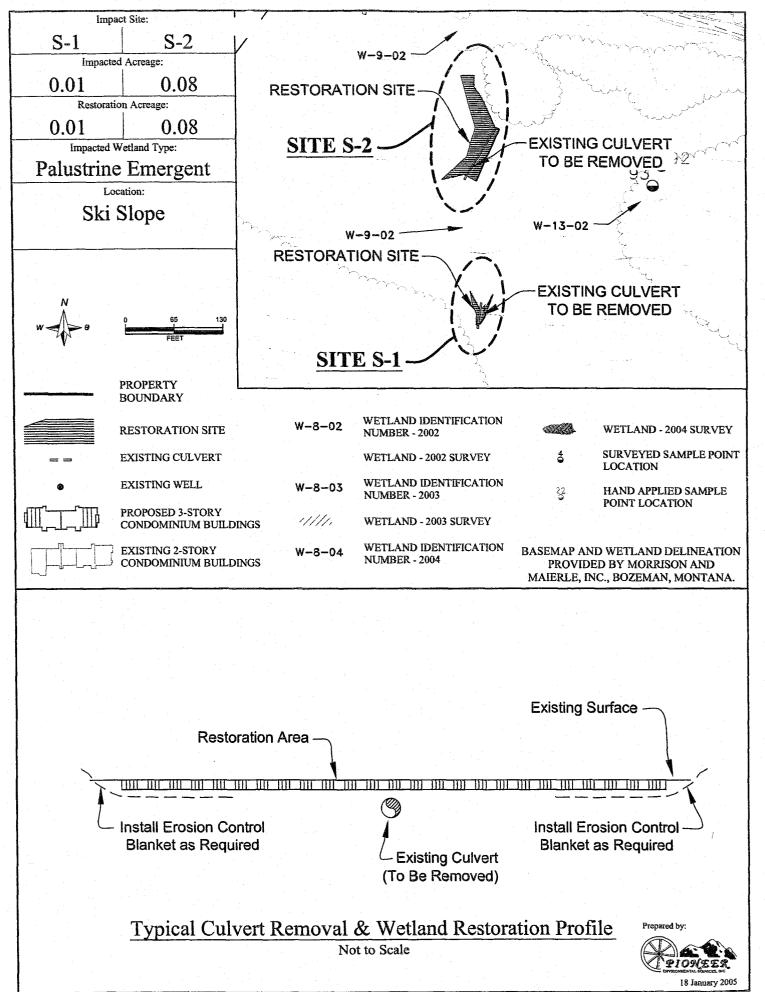


Figure 3. Lone Moose Meadows wetland impact and restoration sites S-1 & S-2.

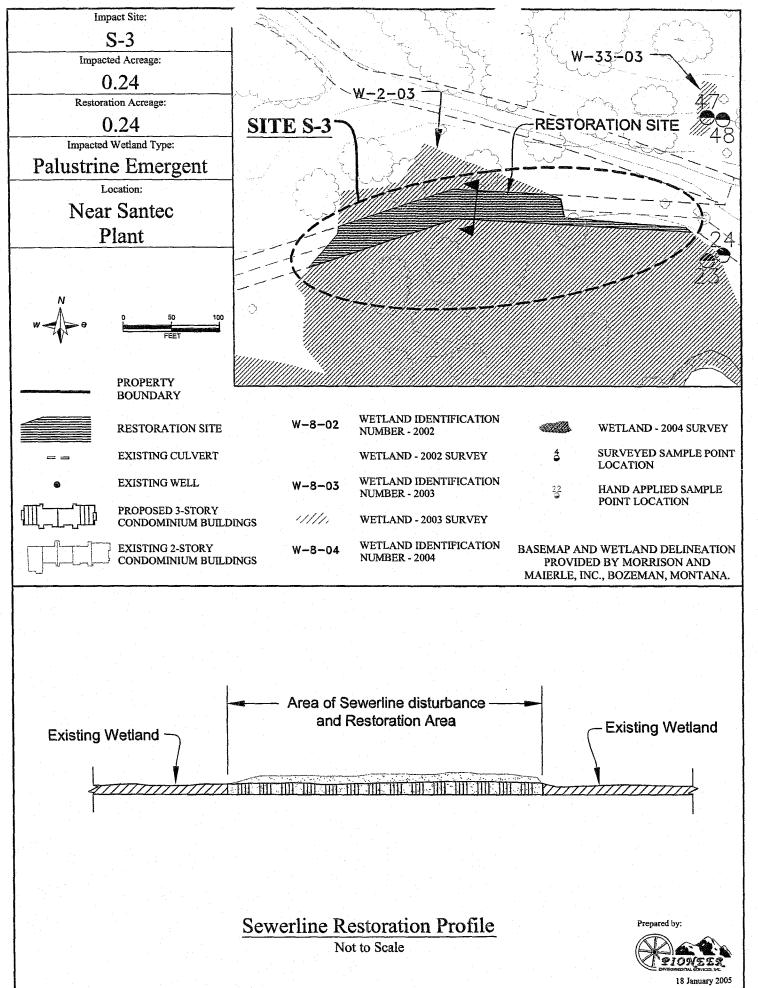


Figure 4. Lone Moose Meadows wetland impact and restoration site S-3.

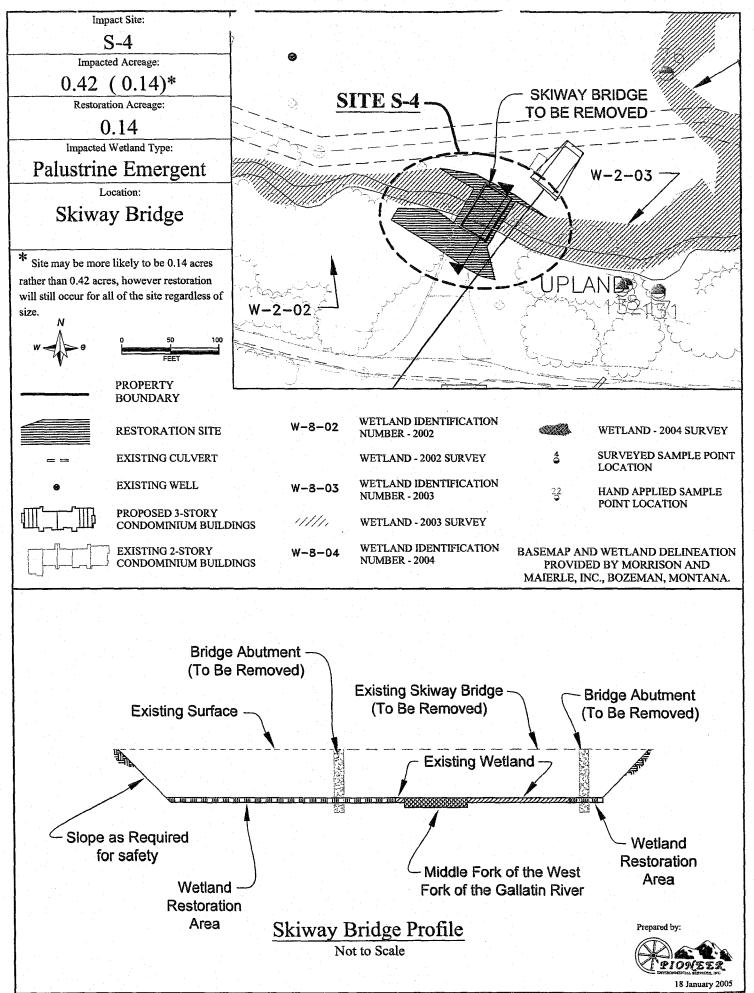


Figure 5. Lone Moose Meadows wetland impact and restoration site S-4.

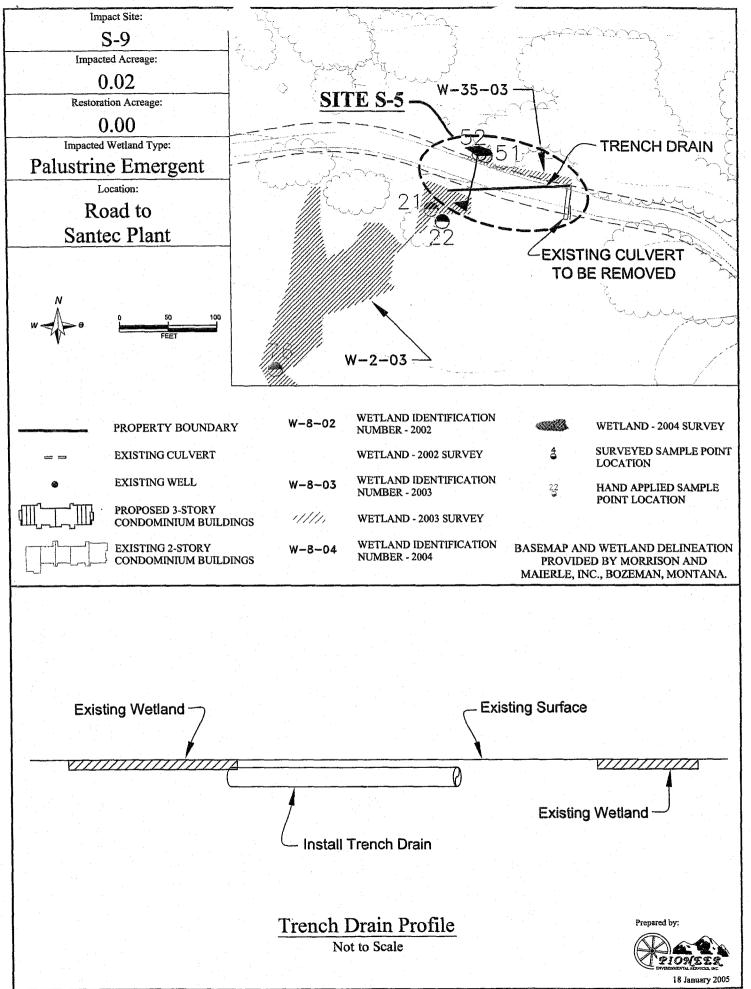


Figure 6. Lone Moose Meadows wetland impact and restoration site S-9.

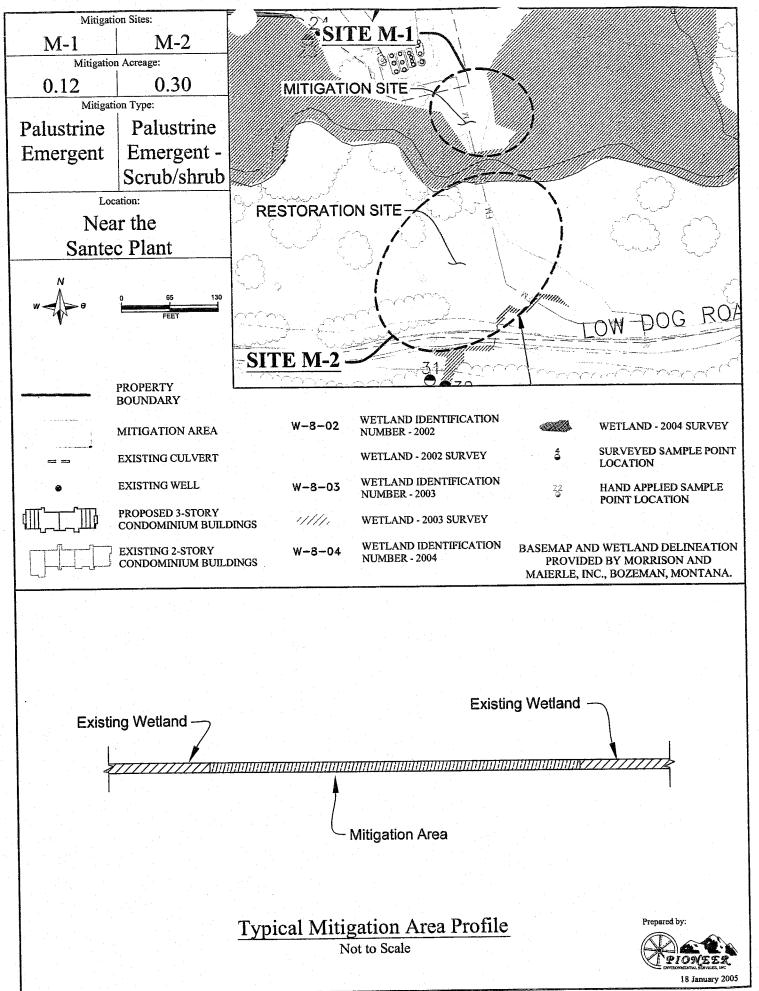


Figure 7. Lone Moose Meadows wetland mitigation sites M-1 & M-2.

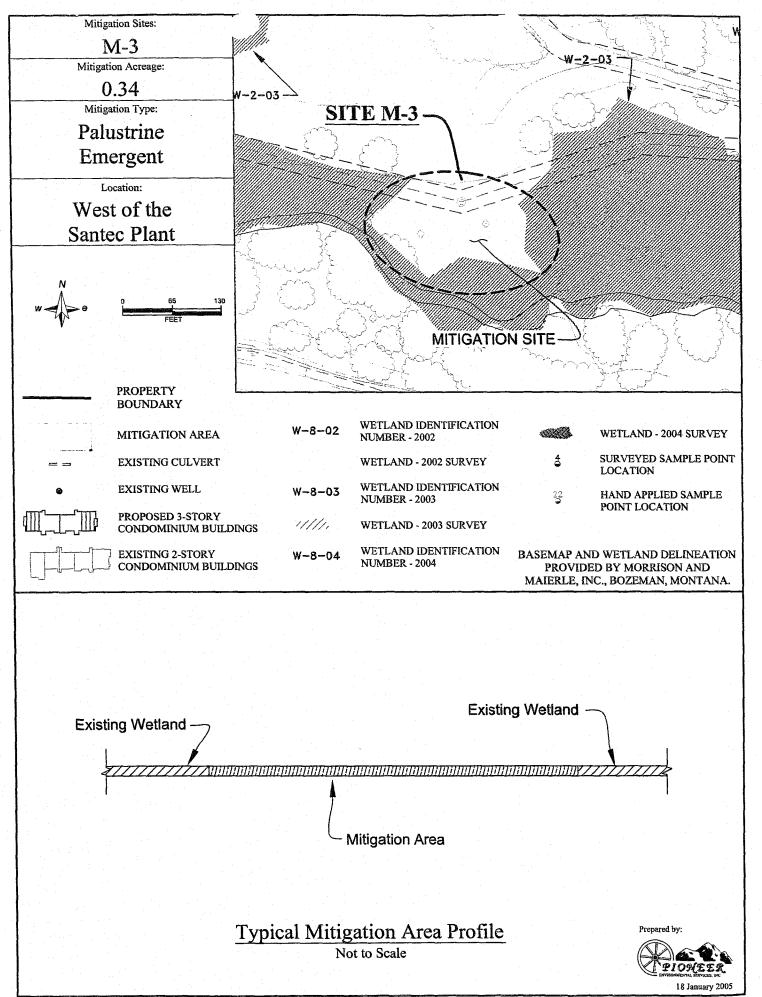


Figure 8. Lone Moose Meadows wetland mitigation site M-3.

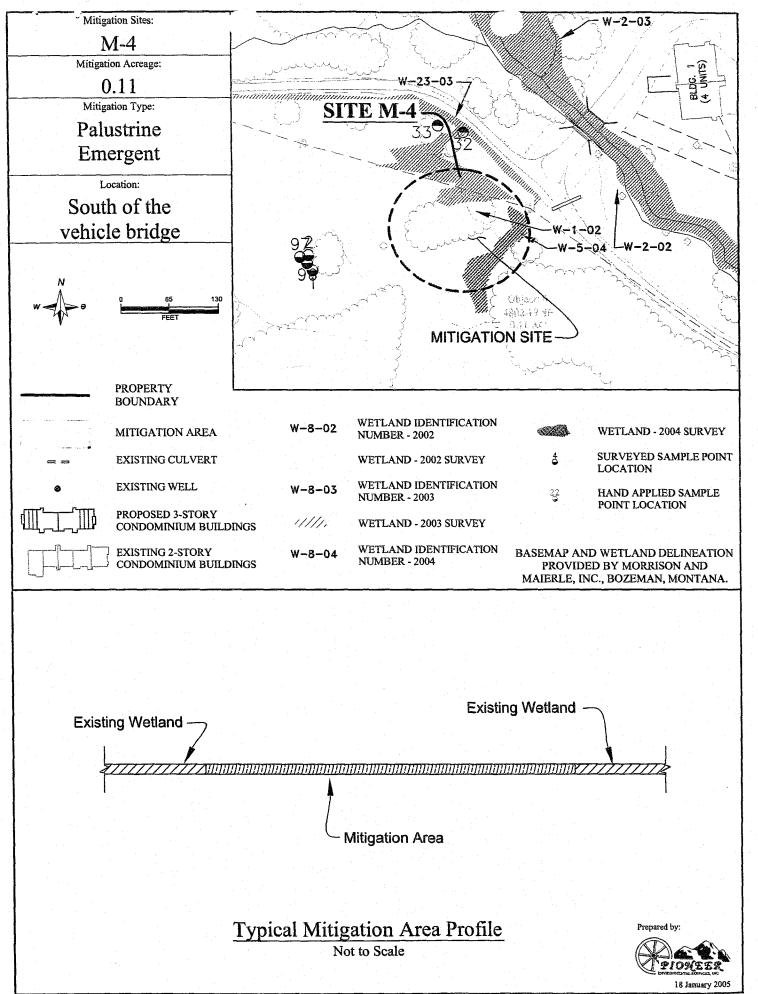


Figure 9. Lone Moose Meadows wetland mitigation site M-4